European Monitoring Centre for Drugs and Drug Addiction

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EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

ECDC – EMCDDA
Public health guidance on prevention and control of communicable diseases in prison

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EXPERT PANEL
Chair: Éamonn O'Moore (Prison lead – Public Health England,UK)
Members: Barbara Janíková and Viktor Mravcik (Czech Republic), Kristel Kivimets (Estonia), Fadi Meroueh and Laurent Michel (France), Heino Stöver, Peter Wiessner and Ruth Zimmerman (Germany), Roberto Ranieri (Italy), Erica Cardoso, Rui Morgado (Portugal), Lucia Mihailescu (Romania), Jose-Manuel Arroyo (Spain), Stefan Enggist and Hans Wolff (Switzerland), Sharon Hutchinson (UK), Alison Hannah (Penal Reform International), Jan Malinowski (Council of Europe), Heino Stover (HA-REACT), Lars Møller (WHO), Ehab Salah (Adviser, HIV in prisons, UNODC, Vienna)

Rationale

- High burden of BBV among prisoners
- Prevalence HCV, HBV, HIV multiple times higher than general population

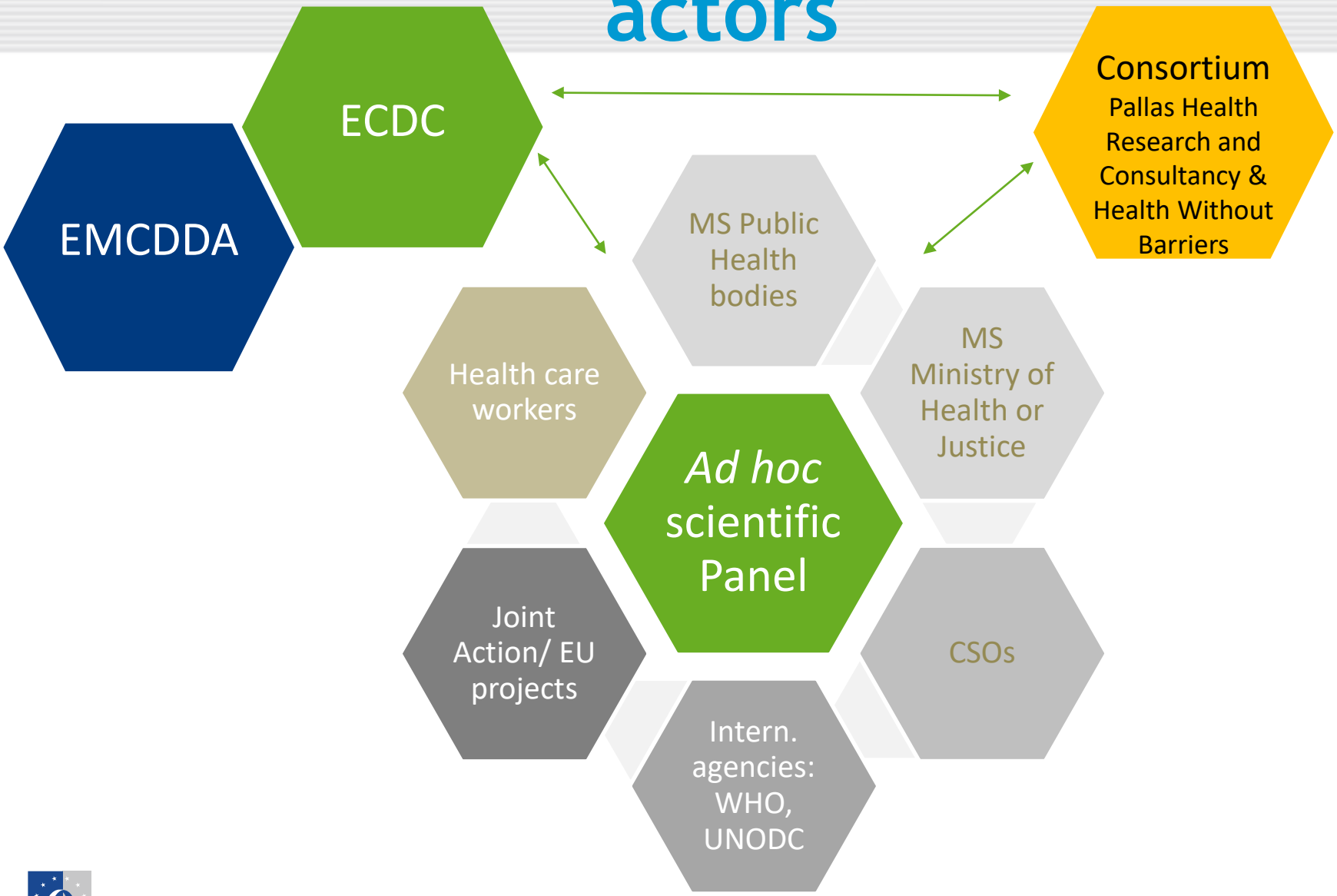
- Setting of increased risk of BBV transmission
- Strong association prison history and BBV prevalence in PWID

- Complex health and care needs of people in prison
- Opportunity to address healthcare needs of groups medically underserved in the community.

Guidance on prevention and control of communicable diseases in prison settings

- **Aim**: Develop an evidence-based public health guidance on prevention and control of communicable diseases in prison settings
- **Scope**: Improve prevention and control of communicable diseases in prison setting by identifying effective (cost-effective) interventions and service models
- **Audience**: Policy makers, policy advisors, programme managers, professionals involved in national guidelines/guidance development, service providers
- **Population**: People in prison [>18 years]

Project governance and key actors



Prevention and control of blood-borne viruses in prison settings

- Review objectives:
- To gain insights in the evidence base for:

✓ the prevention, care and treatment of HIV in prison settings, including throughcare;

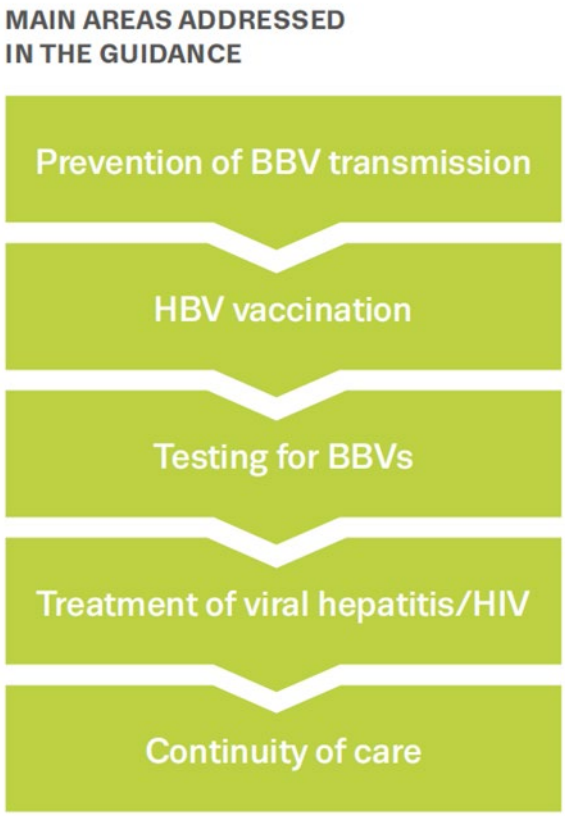
✓ the prevention, care and treatment of viral hepatitis in prison settings, with a focus on treatment of hepatitis C, including throughcare;

✓ the prevention and control of injecting-related infections among current drug users in prison settings, including throughcare.

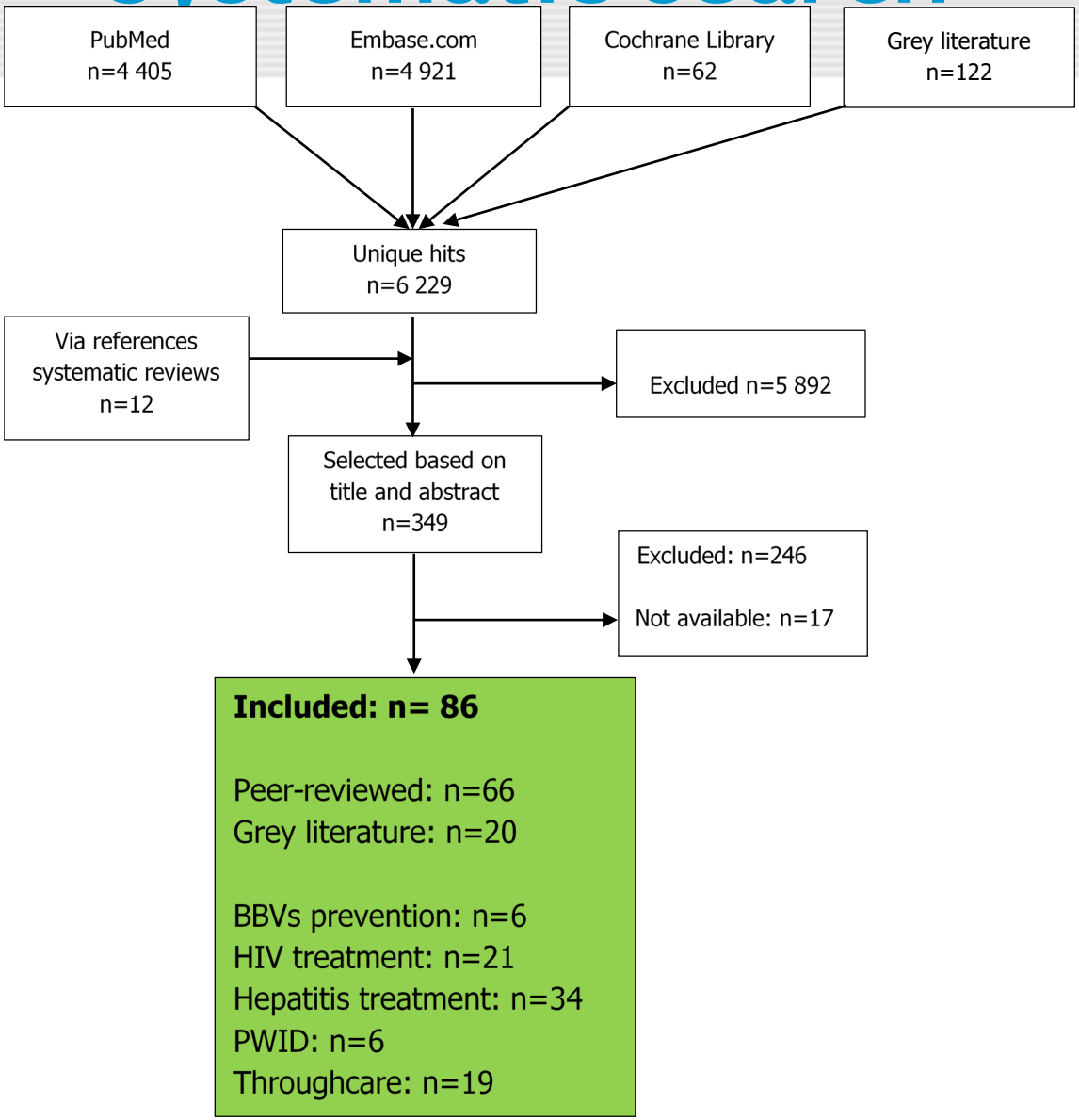
Foundational principles BBV prevention

* Council of Europe. Recommendation Rec(2006)2 of the Committee of Ministers to member states on the European Prison Rules. Vienna: Council of Europe; 2006.
United Nation General Assembly. United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules). 2015

Main areas addressed in the guidance



Systematic search

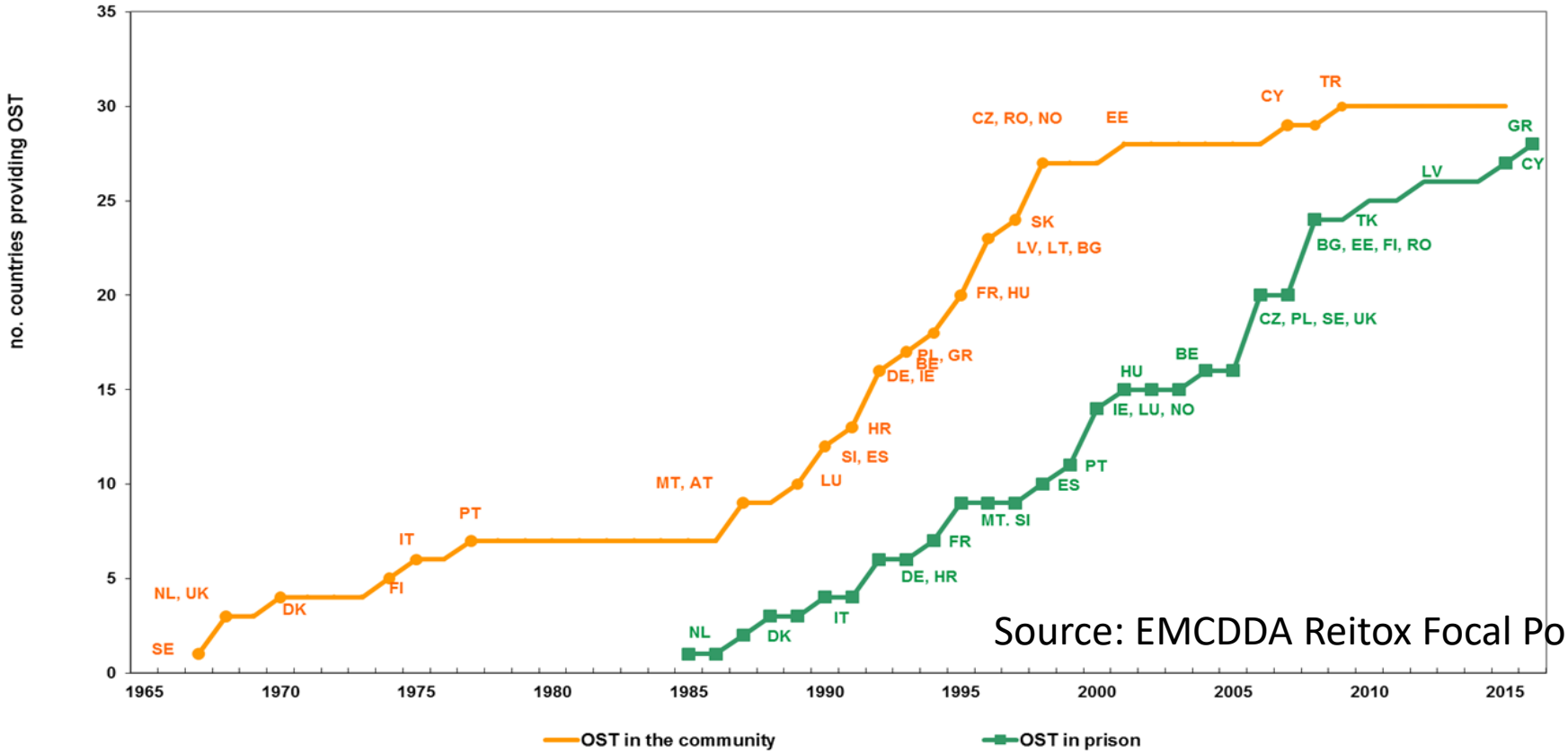


Prevention

- ❖ **Offer a comprehensive package of preventive measures to people in prison that meet the same national standards as those recommended for community settings.**
- ✓ Evidence shows that also in prison settings, condoms and behavioural interventions promote safer sex.
- ✓ Evidence shows that opioid substitution treatment reduces illicit opioid use and risks related to equipment sharing and, when continued on release, provides protection from death caused by overdose.
- ✓ Evidence shows that the provision of clean drug injection equipment is possible in prison settings and can successfully contribute to a comprehensive programme to reduce BBV transmission.

Opioid substitution treatment in prison

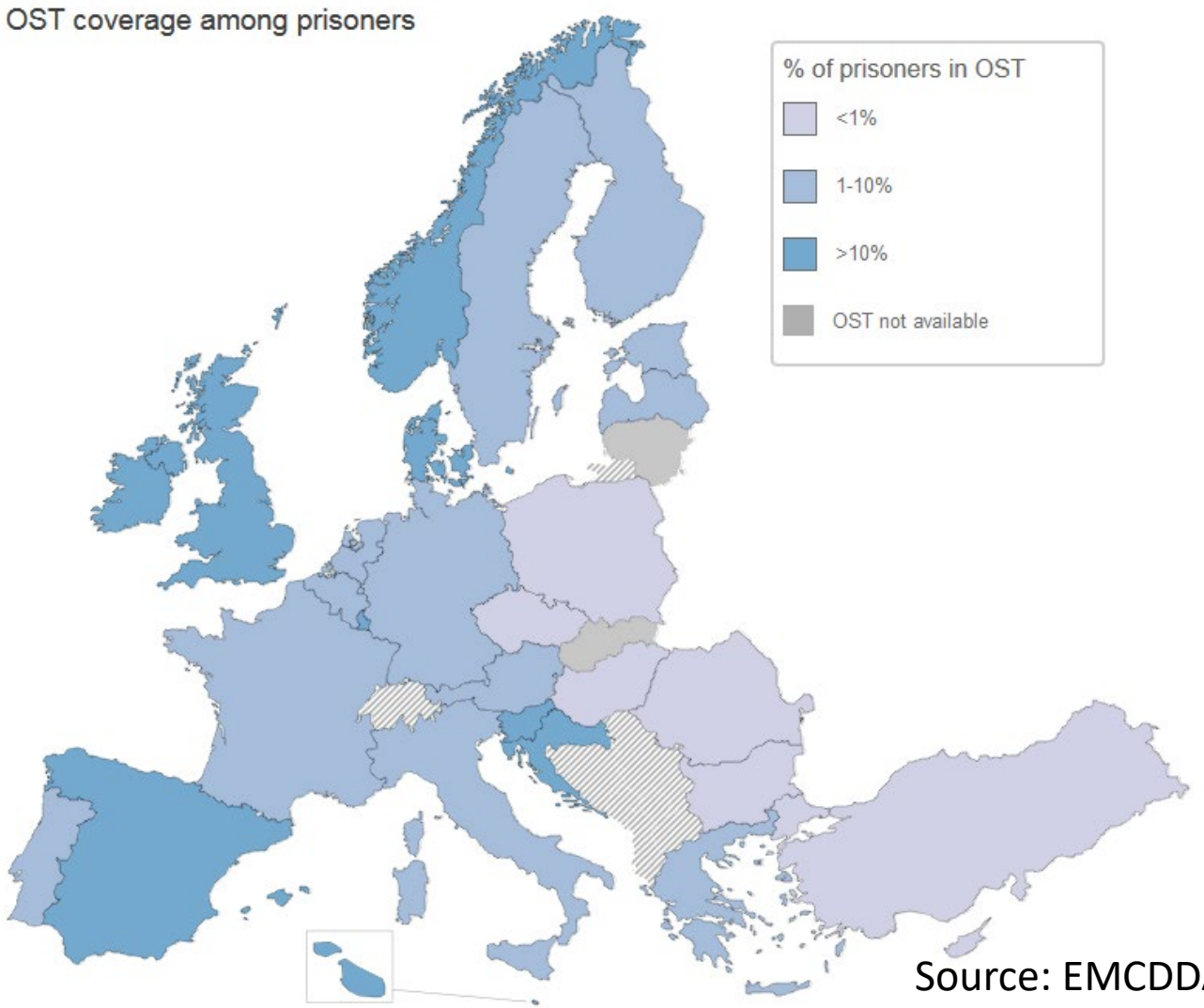
- Delayed introduction in prison settings in EU



Source: EMCDDA Reitox Focal Points

OST coverage in 2016: proxy indication

(number on OST patients per 100 prisoners on a given day)



Source: EMCDDA Reitox Focal Points

HBV vaccination

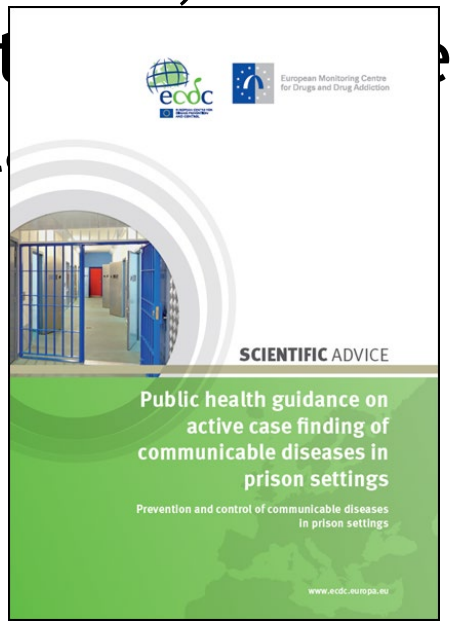
- **Offer HBV vaccination to people in prison with unknown or negative serology.**

- ✓ Evidence shows that using rapid schedules may result in a higher completion rate of the full schedule.

Testing for viral hepatitis and HIV

- ❖ **Actively offer BBV testing to all people in prison upon admission and throughout the time in prison.**
- ✓ Evidence shows that pro-active provision of BBV testing leads to a higher uptake; health promotion and peer educat…en shown to increase HIV testing upt…

See also detailed guidance published in May 2018:



Viral hepatitis and HIV treatment

- **Offer appropriate treatment to individuals diagnosed with HIV, HBV or HCV infection in prison settings, in line with the guidelines applied in the community and meeting the same provision standards as in the community.**

- ✓ Evidence shows that treatment of BBV infections is feasible and effective in prison.

Continuity of care

❖ **Actively support and ensure continuity of care between prison and community.**

✓ Evidence shows that release from prison is a key barrier to continuity and adherence to drug and infectious diseases treatment.

✓ Evidence shows that collaboration and partnership between prison and community health-care services promote and facilitate uninterrupted care.

✓ Evidence shows that active referral to external services improves treatment adherence.

Service priorities at the different stages of detention

The role of monitoring

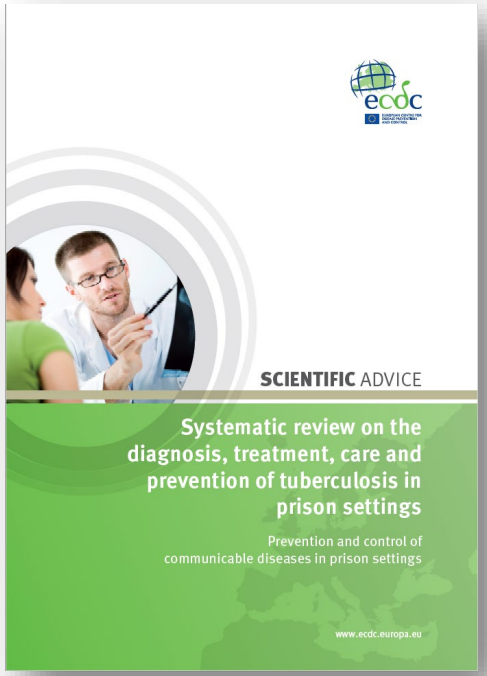
- ✓ Prison health is public health
- ✓ Monitoring essential to support policy and practice decisions
- ✓ Standardised tools to monitor and report epidemiological situation and health response available
- ✓ Integration with wider national health monitoring beneficial

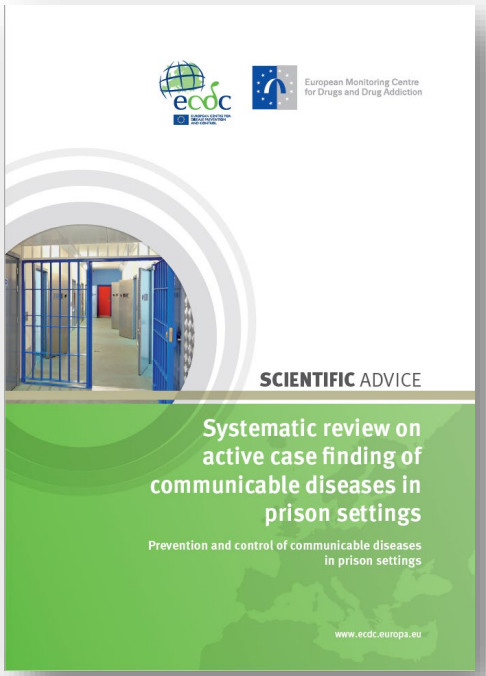
Need for more research

- ✓ Limited published research to confirm evidence-based interventions
- ✓ Grey literature and unpublished research remain fundamental source, but impose limitations
- ✓ Research on design of effective service delivery models lacking
- ✓ Worldwide Prison Health Research & Engagement Network (WEPHREN) may foster future research *https://wephren.tghn.org/*
- ✓ ECDC, EMCDDA and WHO resources available

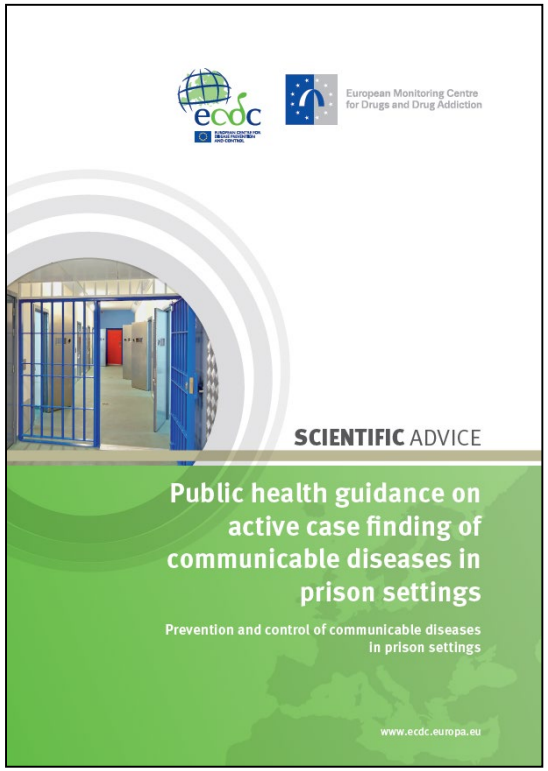
Online resources: systematic review reports

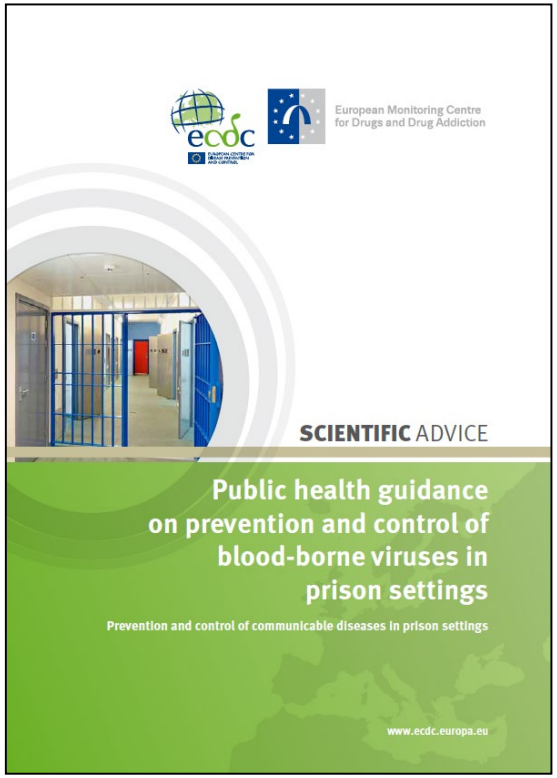
- https://ecdc.europa.eu/en/publications-data/systematic-review-active-case-finding-communicable-diseases-prison-settings
- https://ecdc.europa.eu/sites/portal/files/documents/Systematic-review-tuberculosis-in-prisons-May2017.pdf
- emcdda.europa.eu/publications/joint-publications/ecdc/systematic-review-blood-borne-viruses-in-prison_en

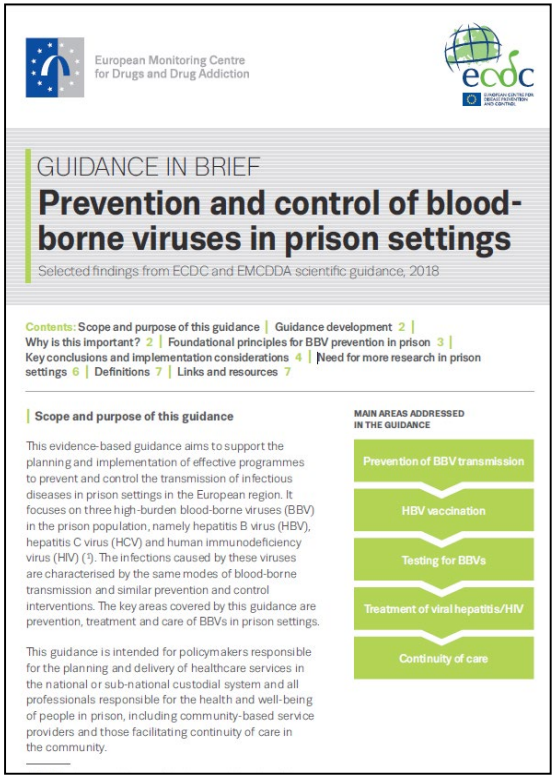




Online resources: guidance documents







https://ecdc.europa.eu/en/publications-data/public-health-guidance-active-case-finding-communicable-diseases-prison-settings
http://www.emcdda.europa.eu/publications/joint-publications/ecdc/guidance-blood-borne-viruses-in-prison_en

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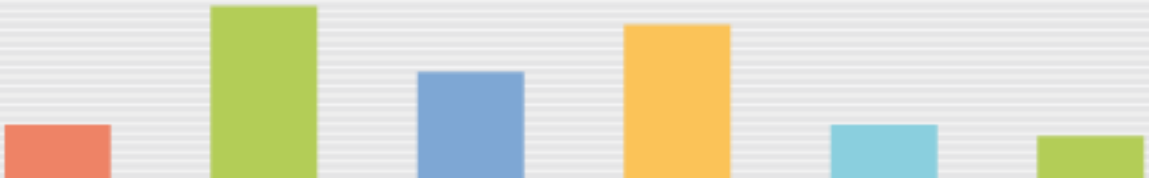
Thank you



Prevention of Hep & HIV in prison settings - findings from research

- ✓ The body of evidence on Hep/HIV prevention in prison settings is limited and restricted to some of the existing preventive measures.

Intervention description	Studies included	Outcome 1: Sero-conversion	Outcome 2: behaviour change	Other outcomes	Level of evidence
Condom distribution EU/EEA (0)	N=1 study; Cross-sectional [Dolan, 2004], sample size (606)	NR	52%, 28% reported always using condom for anal and oral intercourse, respectively	Use condom machine: 28% Use condoms for sex: 40%	Very low
Safe tattooing program EU/EEA (1)	N=1 study; conference abstract [Humet, 2012], sample size [90]	NR	68% of those who requested, performed safe tattooing (69.5% had previously been tattooed)	66% requested safe tattoos	-
Group behaviour/skill s-building intervention EU/EEA (0)	N=2 studies; RCT [Lehman, 2015; St Lawrence, 1997], sample size [1257; 90]	NR	Greater improvement in intervention group for some indicators, e.g. HIV knowledge confidence, avoiding risky sex, avoiding risky drug use,	NR	Low

Prevention of Hep & HIV among PWID in prison settings - findings from research

- ✓ The body of evidence on Hep/HIV prevention targeting PWID in prison settings is limited

Intervention description	Studies included	Outcome 1: Seroconversion	Other outcomes	Level of evidence
Needle and syringe programmes EU/EEA (3)	N=3 study; 3 longitudinal studies [Stark, 2006; Heinemann, 2001; Arroyo, 2015]; sample size (174; 231; NR)	*HCV: 4 out of 22 HCV (IR 18/100 person-years); *No seroconversions were observed during the intervention period *Between 1998 and 2014 the prevalence of HCV and HIV infection in Spanish prison system decreased from 48.6% to 20% and from 12% to 5.8%, respectively. Temporal association, causality not assessed.	No adverse events reported	All very low
Opioid substitution treatment EU/EEA (0)	N=2 study; 2 RCTs [Dolan, 2003; Dolan, 2005], sample size [both studies 191 OST, 191 control]	*4-month follow up: HIV: 0 at baseline and follow-up; HCV: 4 out of 32 OST and 4 out of 35 control *4.2-year follow up: HIV: IR 0.276/ 100 person-years, 95% CI 0.033-0.996 HCV: IR 21.3/100 person-years, 95% CI 15.6-29.2	No adverse events reported Increased risk of HCV seroconversion: periods of imprisonment of <2 months (p≤0.001), OST periods of <5 months (p=0.01)	All very low

HBV vaccination in prison settings - findings from research

- ✓ The body of evidence on effectiveness of HBV vaccination strategies in prison settings is limited

Intervention description	Studies included	Outcome 1: Acceptance	Outcome 2: Uptake	Level of evidence
Standard schedule [0, 1, 6 months]	N=2 studies; 1 cross-sectional [Devine, 2007], sample size [391]; 1 unpublished research report [Gabbuti 2014], sample size [1408-2376] EU/EEA (1)	83% 12.9% (2009)-24.3% (2014)	Dose 1: 43% Dose 2: 48% Dose 3: 19% Dose 3: 76.1% (35/46) in 2009 – 51.7% (185/358) in 2014	Very low
Very rapid schedule Vs Standard schedule	N=1 study; 1 RCT [Christensen, 2004], follow-up [NR], sample size [72] EU/EEA (1)	100%	Very rapid vs Standard (Dose 3): 63% vs 20% Difference in uptake was significant (p=0.017)	Very low
Very rapid schedule [0, 7, 21 days; booster 12 months]	N=3 studies; 1 longitudinal (HBV vaccine) [Christensen, 2004], follow-up [NR], sample size [566] 2 cross-sectional (one with HAV/HBV combined vaccine) [Gilbert 2004; Costumbrado, 2012], sample size [1363; 4719]	100%; NR (HBV) 34% (HAV/HBV offered to MSM only)	HBV Dose 1: 100%; NR Dose 3: 81%; 29% Booster: 42%; 6%-24% HAV/HBV Dose 1: NR Dose 2: 77% Dose 3: 58%	Low/very low

HCV treatment in prison settings – findings from research

- ✓ The body of evidence on HCV treatment in prison settings is largely limited to IFN-based regimens

Intervention description	Studies included	Outcome 1: SVR	Outcome 2: Treatment completion	Level of evidence
Comparison community-based vs. prison-based treatment (IFN-based regimen) EU/EEA (1)	N=2 studies 1 matched cohort [Aspinall, 2016]; sample size [1428] 1 comparative [Rice, 2012], sample size [553]	- People in prison: 42.9%-73.6% - Community: 38.0%-62.9% No significant difference	- People in prison: 75.0%-73.5% - Community: 86.6% No significant difference	Moderate; low
Provision of second generation DAAs EU/EEA (7)	N=7 studies 5 conference abstracts [Touzón-López, 2016; Jiménez-Galán, 2016; Mínguez-Gallego, 2016; Fernàndez-Gonzàlez, 2016; Pontali, 2017]; 2 unpublished reports [Michel, 2017, Meroueh, 2017], sample size [207; 50; 40; 83; 142; 23; 141]	85.0%-94.7%	90.0%-95.5%	-
Comparison DOT vs. SAT (IFN-based regimen) EU/EEA (0)	N=2 studies; 1 RCT [Saiz de la Hoya, 2014], sample size [244]; 1 conference abstract [Saiz de la Hoya, 2010], sample size [244]	Overall: 63.5%, 62.2% - DOT: 60.6%, 58.5% - SAT: 65.9%, 65.9% No significant difference	Overall: 83.0%, 79.8%	Low

HIV treatment in prison settings - findings from research

Intervention description	Studies included	Outcome 1: Adherence	Outcome 2: Viral suppression	Level of evidence
Usual care - Combination of DOT and SAT EU/EEA (2)	N=7 studies; 3 longitudinal [Kirkland, 2002; Meyer, 2014; Springer, 2004], follow-up [24 weeks; until release; until release], sample size [108; 882; 1099]; 3 cross-sectional [Soto Blanco, 2005; Altice, 2001; Mostashari, 1998], sample size [177; 205; 102]; 1 conference abstract [Manzano, 2010], sample size[170]	62%-94%	23%-62% Significant decrease in viral load in n=2 studies, decrease (significance NR) in n=1 study, from baseline to follow-up	All very low
Telemedicine with HIV specialist EU/EEA (0)	N=1 study; 1 comparative [Young, 2014], sample size [1201], follow-up [18 months]	NR	Significant increase in likelihood of viral suppression in telemedicine group	Very low
Clinical pharmacist-lead treatment EU/EEA (0)	N=1 study; 1 longitudinal [Bingham, 2012], follow-up [NR], sample size [135]	73%	Increased from 32% to 66% following intervention (significance NR)	Very low
Comparison DOT vs. SAT (IFN-based regimen) EU/EEA (0)	N=2 studies; 1 longitudinal [Wohl, 2003], follow-up [3-4 months], sample size [31]; 1 RCT [White, 2015], follow-up [48 weeks], sample size [43]	No significant difference [measured by e-monitoring, pill-count or self-reported]	No significant difference	Very low

Continuity of care post-release - findings from research (I/III)

Intervention description	Studies included	Outcome 1: Linkage to care	Outcome 2: be-haviour change	Level of evidence
Individual-level educational and skills-building intervention vs. usual care (medication supply at release NR)	N=1 study; 1 RCT [MacGowan, 2015], follow-up [3 months post-release], sample size [73] EU/EEA (0)	No significant change in taking HIV medications from at release to 3 months post-release in both groups and between groups; statistically significant increase in receiving health care at HIV clinics at 3-month post-release (62.5–84.4 %) in intervention group	No significant change in unprotected sex, IDU, and STI diagnosis from 3 months pre-incarceration to 3 months post-release between groups	Low
Individual-level intensive case management vs. usual care (both 30-day medication supply at release)	N=1 study; 1 RCT [Wohl, 2011], follow-up [48 weeks post-release], sample size [89] EU/EEA (0)	No significant difference between both groups in % medical care access ≥once, median time to clinic access, mean number of clinic visits, hospitalisation rate, emergency care visits, outpatient subtance abuse care post-release	NR	Low
Ecosystem vs. individually focused (both medication supply at release)	N=1 study; 1 RCT [Reznick, 2013], follow-up [12 months post-release], sample size [151] EU/EEA (0)	Ecosystem significantly less likely to be taking ART and be adherent at 4-month post-release (both groups significant decrease vs. baseline), but no significant difference in groups and between groups at 8 and 12-month post-release	No significant difference between both groups in sexual behaviour post-release	Low

Continuity of care post-release - findings from research (II/III)

Intervention description	Studies included	Outcome 1: Linkage to care	Outcome 2: be-haviour change	Level of evidence
Being met at the gate vs. Not being met at the gate (education, counselling and discharge planning)	N=1 study; 1 longitudinal [Jacob Arriola, 2007], follow-up [6 months post-release], sample size [226] EU/EEA (0)	Those being met at the gate were significantly more likely to participate in drug/alcohol treatment than the control group	Those being met at the gate were significantly less engaging in sex exchange and use of street drug than the control group	Very low
Usual care (active referral after release, with or without medication supply)	N=2 studies; 2 longitudinal [White, 2001; Althoff, 2013], follow-up [NR], sample size [77; 867] EU/EEA (0)	69% received 3-day supply prescription, of whom 71% picked it up; 46% of those re-jailed received HIV medications in community 61% had an appointment with a community HIV care services; 38% attended twice in 6-month period	NR	Very low
Usual care (referral after release only, unclear if active or passive)	N=1 study; 1 longitudinal [Beckwith, 2014 [198]], follow-up [NR], sample size [64] EU/EEA (0)	58% linkage to care No significant association between length of incarceration and linkage to care	NR	Very low

Continuity of care- findings from research (III/III)

Intervention description	Studies included	Outcome 1: Linkage to care	Outcome 2: be-haviour change	Level of evidence
No OST in prison without (Group 1)/with (Group 2) referral to community OST Vs OST in prison and referral	N=1 study; 1 longitudinal [Kinlock, 2009], follow-up [12-month], sample size [204] EU/EEA (0)	-Group 1:25% enrolled in care; 0% were on OST at 12-month -Group 2: 53.6% enrolled in care; 17.3% were on OST at 12-month -Group 3: 70.4% enrolled in care; 36.7% were on OST at 12-month Pairwise comparison all significant ($p<0.01$)	Positive urine test for opioid at 12-month post-release significantly less for Group 3.	Low
No OST in prison with referral to community OST Vs OST in prison and referral	N=1 study; 1 RCT [Gordon, 2017], follow-up [12-month], sample size [211] EU/EEA (0)	Participants in the in-prison BPN group were significantly more likely ($p=0.012$) of enrolling into community OST programmes (47.5% vs. 33.7%).	No statistically significant difference for heroin use and crime, opioid and cocaine positive urine screening test	Low
OST in prison and financial support (Arm1) Vs. No OST in prison with (Arm 2)/without (Arm 3) financial support	N=1 study; 1 RCT [Mac Kenzie, 2012], follow-up [6-month], sample size [90] EU/EEA (0)	Participants on OST prior to release significantly more likely to enter treatment post-release ($P < 0.001$); Among those enrolled in community OST, those who received OST in prison did so within fewer days ($P =0.03$).	Participants on OST prior to release reported less heroin use ($P = 0.008$), other opiate use ($P = 0.09$), and injection drug use ($P = 0.06$) at 6 months	Very low